



# SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 19 85 99 97

**Classification of the application (IPC):**  
H04W 16/02, H04W 16/14, H04W 72/04, H04W 72/08, H04W 48/16

**Technical fields searched (IPC):**  
H04W

| DOCUMENTS CONSIDERED TO BE RELEVANT |                                                                                                                                                                                              |                   |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Category                            | Citation of document with indication, where appropriate, of relevant passages                                                                                                                | Relevant to claim |
| X                                   | US 2018132288 A1 (AGUIRRE SERGIO [US] ET AL)<br>10 May 2018 (2018-05-10)<br>* paragraphs [0014] - [0149]; figures 1A-6 *                                                                     | 1-15              |
| X                                   | US 2017238316 A1 (LI YING [US] ET AL) 17 August 2017 (2017-08-17)<br>* paragraphs [0004] - [0006], [0026] - [0140]; figures 1-10 *                                                           | 1-15              |
| X                                   | EP 3166366 A1 (INTEL IP CORP [US]) 10 May 2017 (2017-05-10)<br>* paragraphs [0002] - [0003], [0010] - [0175]; figures 1-7 *                                                                  | 1-15              |
| X                                   | US 2016088631 A1 (HEDAYAT AHMADREZA [US] ET AL)<br>24 March 2016 (2016-03-24)<br>* paragraphs [0008] - [0069]; claims 1-30; figures 1-5 *                                                    | 1-15              |
| X                                   | WO 2018150303 A1 (ERICSSON TELEFON AB L M [SE])<br>23 August 2018 (2018-08-23)<br>* page 3, line 12 - page 7, line 14; claims 1-21; figures 1-13 *<br>* page 8, line 31 - page 33, line 23 * | 1-15              |

The supplementary search report has been based on the last set of claims valid and available at the start of the search.

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| Place of search<br>The Hague | Date of completion of the search<br>29 April 2022 | Examiner<br>Binger, Bernard |
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## CATEGORY OF CITED DOCUMENTS

- |                                                                                 |                                                                        |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------|
| X: particularly relevant if taken alone                                         | P: intermediate document                                               |
| Y: particularly relevant if combined with another document of the same category | T: theory or principle underlying the invention                        |
| A: technological background                                                     | E: earlier patent document, but published on, or after the filing date |
| O: non-written disclosure                                                       | D: document cited in the application                                   |
| & : member of the same patent family, corresponding document                    | L: document cited for other reasons                                    |

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# ANNEX TO SUPPLEMENTARY EUROPEAN SEARCH REPORT

Application number:  
EP 19 85 99 97

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on 29-04-2022  
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| Patent document cited<br>in search report |    | Publication<br>date | Patent family<br>member(s) |               | Publication<br>date |
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